

CLAIMS

1. A printing device that pulls print data to be printed by requesting and obtaining the print data, said device comprising:

a print start instruction receiving unit operable to receive
5 location information indicating a storage location of printing instruction information indicating details of a printing instruction to the printing device, the location information being received as an instruction indicating that printing of the print data should be started;

10 a printing instruction information request unit operable to request transmission of the printing instruction information indicated by the location information received by said print start instruction receiving unit;

a printing instruction information receiving unit operable to
15 receive the printing instruction information requested by said printing instruction information request unit;

a print data request unit operable to request transmission of the print data, based on the printing instruction information;

a print data receiving unit operable to receive the print data
20 requested by said print data request unit; and

a printing unit operable to print the received print data according to the received printing instruction information.

2. The printing device according to Claim 1,

25 wherein the printing instruction information includes location information indicating a storage location of the print data, and

said print data request unit is operable to request the transmission of the print data based on the location information included in the printing instruction information.

30 3. The printing device according to Claim 2,

wherein the printing instruction information includes print

type specification information indicating a print type of the print data, and

5 said printing unit is operable to print the print data based on the print type specification information included in the printing instruction information.

4. The printing device according to Claim 3,
 wherein said printing instruction information request unit is operable to request the transmission of the printing instruction
10 information when printing based on the printing instruction information becomes ready for execution.

5. The printing device according to Claim 4,
 wherein a device in which the printing instruction information
15 is stored is different from a device in which the print data is stored, and

 said printing instruction information request unit is operable to identify the device in which the printing instruction information is stored, based on the location information received by said print start
20 instruction receiving unit, and to request the identified device for the transmission of the printing instruction information.

6. The printing device according to Claim 5,
 wherein said print data request unit is operable to identify the
25 device in which the print data is stored based on the location information included in the printing instruction information, and to request the identified device for the transmission of the print data.

7. The printing device according to Claim 6,
30 wherein said print data request unit is operable to request the transmission of the print data over a communication line.

8. A printing instruction device that gives, to a printing device, a printing instruction to print print data, said device comprising:

a printing instruction input unit operable to accept an instruction, inputted from a user, indicating that the print data should be printed;

a printing instruction information generation unit operable to generate printing instruction information when the instruction indicating that the print data should be printed is accepted, the printing instruction information indicating details of the printing instruction to the printing device;

a printing instruction information storage unit operable to hold the generated printing instruction information;

a location information generation unit operable to generate location information indicating a storage location of the printing instruction information;

a location information transmission unit operable to transmit the generated location information to the printing device;

a transmission request receiving unit operable to receive, from the printing device, a request for transmission of the printing instruction information indicated by the location information; and

a printing instruction information transmission unit operable to transmit the stored printing instruction information to the printing device, in response to the request for transmission.

9. The printing instruction device according to Claim 8, wherein said printing instruction information generation unit includes

a print data location information obtainment unit operable to obtain location information indicating a storage location of the print data, and

said printing instruction information generation unit is operable to generate the printing instruction information that

includes the obtained location information, when the instruction indicating that the print data should be printed is accepted.

10. The printing instruction device according to Claim 9,
5 wherein said print data location information obtainment unit is operable to receive the location information of the print data from an external device.

11. The printing instruction device according to Claim 10,
10 wherein said printing instruction input unit includes a print type specification input unit operable to accept an specification, inputted from the user, indicating a print type of the print data,

said printing instruction information generation unit includes
15 a print type specification information generation unit operable to generate print type specification information for specifying the print type, when the specification indicating the print type is accepted, and

said printing instruction information generation unit is
20 operable to generate the printing instruction information that includes the generated print type specification information, when the instruction indicating that the print data should be printed is accepted.

25 12. The printing instruction device according to Claim 11, wherein said printing instruction input unit further includes a printing instruction change unit operable to make a change in the already generated printing instruction information that includes the print type specification information, based on an
30 instruction inputted from the user to said printing instruction input unit, and

said printing instruction change unit is operable to make a

change in the already generated printing instruction information stored in said printing instruction information storage unit, in the case where the already generated printing instruction information has not yet been transmitted to the printing device.

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13. The printing instruction device according to Claim 12, wherein said printing instruction change unit is operable to make a change in the print type specification information included in the printing instruction information stored in said printing instruction information storage unit.

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14. The printing instruction device according to Claim 13, wherein said printing instruction information transmission unit is operable to transmit the printing instruction information after the change in the print type specification information is completed, in the case of receiving the request for transmission of the printing instruction information before the change in the print type specification information is completed.

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15. A print system comprising a printing device and a printing instruction device,

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wherein said printing instruction device comprises:

a printing instruction input unit operable to accept an instruction, inputted from a user, indicating that print data should be printed;

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a printing instruction information generation unit operable to generate printing instruction information when the instruction indicating that the print data should be printed is accepted, the printing instruction information indicating details of a printing instruction to said printing device;

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a printing instruction information storage unit operable to hold the generated printing instruction information;

a location information generation unit operable to generate location information indicating a storage location of the printing instruction information;

5 a location information transmission unit operable to transmit the generated location information to said printing device;

a transmission request receiving unit operable to receive, from said printing device, a request for transmission of the printing instruction information indicated by the location information; and

10 a printing instruction information transmission unit operable to transmit the stored printing instruction information to said printing device, in response to the request for transmission, and said printing device comprises:

15 a print start instruction receiving unit operable to receive the location information indicating the storage location of the printing instruction information, the location information being received as an instruction indicating that printing of the print data should be started;

20 a printing instruction information request unit operable to request transmission of the printing instruction information indicated by the location information received by said print start instruction receiving unit;

a printing instruction information receiving unit operable to receive the printing instruction information requested by said printing instruction information request unit;

25 a print data request unit operable to request transmission of the print data, based on the printing instruction information;

a print data receiving unit operable to receive the print data requested by said print data request unit; and

30 a printing unit operable to print the received print data according to the received printing instruction information.

16. A presentation device that pulls presentation data to be

presented by requesting and obtaining the presentation data, said device comprising:

a presentation instruction receiving unit operable to receive location information indicating a storage location of presentation instruction information indicating details of a presentation instruction to the presentation device, the location information being received as an instruction indicating that presentation of the presentation data should be started;

a presentation instruction information request unit operable to request transmission of the presentation instruction information indicated by the location information received by said presentation instruction receiving unit;

a presentation instruction information receiving unit operable to receive the presentation instruction information requested by said presentation instruction information request unit;

a presentation data request unit operable to request transmission of the presentation data, based on the presentation instruction information;

a presentation data receiving unit operable to receive the presentation data requested by said presentation data request unit; and

a presentation unit operable to present the received presentation data according to the received presentation instruction information.

17. The presentation device according to Claim 16,

wherein the presentation device is a music reproduction device that pulls music data to be reproduced by requesting and obtaining the music data,

the presentation instruction receiving unit is operable to receive location information indicating a storage location of a play list indicating details of a reproduction instruction to the music

reproduction device, the location information being received as an instruction indicating that reproduction of the music data should be started,

5 said presentation instruction information request unit is operable to request transmission of the play list indicated by the location information received by said presentation instruction receiving unit,

10 said presentation instruction information receiving unit is operable to receive the play list requested by said presentation instruction information request unit,

 said presentation data request unit is operable to request transmission of the music data, based on the play list,

15 said presentation data receiving unit is operable to receive the music data requested by said presentation data request unit, and

 said presentation unit is operable to reproduce the received music data according to the received play list.

18. The presentation device according to Claim 16,

20 wherein the presentation device is a display device that pulls display data to be displayed by requesting and obtaining the display data,

25 the presentation instruction receiving unit is operable to receive location information indicating a storage location of a display list indicating details of a display instruction to the display device, the location information being received as an instruction indicating that display of the display data should be started,

30 said presentation instruction information request unit is operable to request transmission of the display list indicated by the location information received by said presentation instruction receiving unit,

 said presentation instruction information receiving unit is

operable to receive the display list requested by said presentation instruction information request unit,

said presentation data request unit is operable to request transmission of the display data, based on the display list,

5 said presentation data receiving unit is operable to receive the display data requested by said presentation data request unit, and

said presentation unit is operable to display the received display data according to the received display list.

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19. The presentation device according to Claim 16,

wherein the presentation device is a printing device that pulls print data to be printed by requesting and obtaining the print data,

15 the presentation instruction receiving unit is operable to receive location information indicating a storage location of printing instruction information indicating details of a printing instruction to the printing device, the location information being received as a instruction indicating that printing of the print data should be started,

20 said presentation instruction information request unit is operable to request transmission of the printing instruction information indicated by the location information received by said presentation instruction receiving unit,

25 said presentation instruction information receiving unit is operable to receive the printing instruction information requested by said presentation instruction information request unit,

said presentation data request unit is operable to request transmission of the print data, based on the printing instruction information,

30 said presentation data receiving unit is operable to receive the print data requested by said presentation data request unit, and

said presentation unit is operable to print the received print

data according to the received printing instruction information.

20. A printing method for use with a printing device that pulls print data to be printed by requesting and obtaining the print data,
5 said method comprising:

receiving location information indicating a storage location of printing instruction information indicating details of a printing instruction to the printing device, the location information being received as a print start instruction indicating that printing of the
10 print data should be started;

requesting transmission of the printing instruction information indicated by the location information received in said receiving of the print start instruction;

receiving the printing instruction information requested in
15 said requesting for the transmission of the printing instruction information;

requesting transmission of the print data based on the printing instruction information;

receiving the print data requested in said requesting for the
20 transmission of the print data; and

printing the received print data according to the received printing instruction information.

21. A printing instruction method for giving, to a printing device,
25 a printing instruction to print print data, said method comprising:

accepting an instruction inputted from a user indicating that the print data should be printed;

generating printing instruction information when the instruction indicating that the print data should be printed is
30 accepted, the printing instruction information indicating details of the printing instruction to the printing device;

holding the generated printing instruction information;

generating location information indicating a storage location of the printing instruction information;

transmitting the generated location information to the printing device;

5 receiving, from the printing device, a request for transmission of the printing instruction information indicated by the location information; and

transmitting the stored printing instruction information to the printing device, in response to the request for transmission.

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22. A print method for use in a print system comprising a printing device and a printing instruction device, said method comprising:

accepting an instruction from a user indicating that print data should be printed, said accepting being executed in the printing instruction device;

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generating printing instruction information indicating details of a printing instruction to the printing device, when the instruction indicating that the print data should be printed is accepted, said generating being executed in the printing instruction device;

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holding the generated printing instruction information, said holding being executed in the printing instruction device;

generating location information indicating a storage location of the printing instruction information, said generating being executed in the printing instruction device;

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transmitting the generated location information to the printing device, said transmitting being executed in the printing instruction device;

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receiving the location information indicating the storage location of printing instruction information, the location information being received as a print start instruction indicating that printing of the print data should be started, said receiving being executed in the printing device;

sending a request for transmission of the printing instruction information indicated by the location information received in said receiving of the print start instruction, said sending being executed in the printing device;

5 receiving, from the printing device, the request for transmission of the printing instruction information indicated by the location information, said receiving being executed in the printing instruction device;

10 transmitting the stored printing instruction information to the printing device, in response to the request for transmission, said transmitting being executed in the printing instruction device;

receiving the printing instruction information requested in said requesting for the transmission of the printing instruction information, said receiving being executed in the printing device;

15 requesting transmission of the print data based on the printing instruction information, said requesting being executed in the printing device;

20 receiving the print data requested in said requesting for the transmission of the print data, said receiving being executed in the printing device; and

printing the received print data according to the received printing instruction information, said printing being executed in the printing device.

25 23. A program for a printing device that pulls print data to be printed by requesting and obtaining the print data, said program causing a computer to execute:

30 receiving location information indicating a storage location of printing instruction information indicating details of a printing instruction to the printing device, the location information being received as a print start instruction indicating that printing of the print data should be started;

requesting transmission of the printing instruction information indicated by the location information received in said receiving of the print start instruction;

receiving the printing instruction information requested in
5 said requesting for the transmission of the printing instruction information;

requesting transmission of the print data based on the printing instruction information;

receiving the print data requested in said requesting for the
10 transmission of the print data; and

printing the received print data according to the received printing instruction information.

24. A program for a printing instruction device that gives, to a
15 printing device, a printing instruction to print print data, said program causing a computer to execute:

accepting an instruction inputted from a user indicating that the print data should be printed;

generating printing instruction information when the
20 instruction indicating that the print data should be printed is accepted, the printing instruction information indicating details of the printing instruction to the printing device;

holding the generated printing instruction information;

generating location information indicating a storage location
25 of the printing instruction information;

transmitting the generated location information to the printing device;

receiving, from the printing device, a request for transmission of the printing instruction information indicated by the location
30 information; and

transmitting the stored printing instruction information to the printing device, in response to the request for transmission.